Kerabit
Tuotteet

Installing Kerabit underlay membranes on high-pitched roofs

Kerabit 3000 UB, Kerabit 2600 UB Fleece, Kerabit 2500 UB, Kerabit 2400 UB, Kerabit 2200 UB, Kerabit 1800 UB Fleece and Kerabit 700 UB

The Kerabit bitumen underlay membranes with an adhesive edge are used as underlays for discontinuous roofings, such as bitumen shingle, steel and tile roofings for solid underlays in cases where the roof slope is steeper than 1:10. For roofs having a slope of 1:5 to 1:10, a complex form or otherwise demanding, the Kerabit 3000 UB, 2600 UB Fleece, 2500 UB, 2400 UB or 1800 UB Fleece underlay membranes are recommended. These instructions are a guideline, only, and the installation instructions of the water underlay to be placed on top must also be taken into consideration. The instructions by the roofing manufacturer need to be consulted with regard to the roof slope and underlay, as well as the sheet metal plating potentially needed for eaves, and other such details. Ventilation battens must be installed before the ribs possibly required by the roofing material.

It is recommended that the actual water roofing be installed as quickly as possible on the underlay membrane. If the underlay membrane is installed late in the autumn, and the roof is left to rely on the underlay membrane for the winter, it is recommended to use the Kerabit 3000 UB, Kerabit 2600 UB Fleece, Kerabit 2500 UB, Kerabit 2400 UB or Kerabit 1800 UB Fleece underlay membranes.

When installing underlay membranes without an adhesive edge, all the seams need to be sealed withe the Kerabit Tiivistysliima sealing adhesive.

Note before installation

Membrane rolls are stored in the vertical position, protected from rain and sun damage. Before installation, the rolls must be stored at a temperature of +15 °C, or warmer, for at least a day. The membrane rolls are unrolled in advance to straighten out, which prevents bumps in the product. The time that the straightening out requires depends on the temperature (approximately 1 to 4 hours).

When installing an underlay membrane, the temperature must be over +10 °C and the weather rainless. An underlay membrane must not be installed if it is raining. If the installation temperature is lower than +10 °C, the adhesiveness of the seam must be ensured, if need be, by warming the adhesive surfaces of the membranes carefully with a hot air blower (Note: hot work).

Suitable underlays include tongue-and-groove boards, a weatherproof tongue-and-groove construction board or, under a machine-sealed metal-sheeted roof, also an adequately thick rough board, in accordance with the construction plan. The underlay must be non-sagging, even, and dry.

A hook-bladed carpet knife is needed to cut the underlay membranes. Kerabit Tiviistysliima sealing adhesive is used for gluing. For nailing, hot-galvanized, broad-headed clout nails are used. The nails must penetrate the wood underlay. If a clout nail gun is used, the percussion force needs to be so adjusted that the nail head does not penetrate the membrane.

Before starting the installation of the underlay membrane, ensure proper and sufficient roof ventilation. If the roof is a bitumen roof and the roof slope is 1:1 to 1:5, the ventilation may be enhanced with the Kerabit Ridge Vents. Ridge vents are installed to extend the entire length of the roof ridge. See Ridge Vent Installation Instructions

Before installation of the underlay membrane, triangle batten strips are fixed to the base of chimneys and upturns (with the exception of machine-sealed roofing installed directly on top of the underlay membrane).

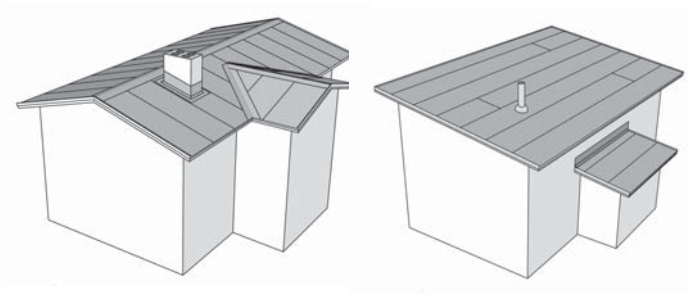
Bitumen membranes are always installed from the lower eaves upwards to avoid superimposed seams. Note that a roofing is only installed on top of chimneys and large lead-throughs when the lead-through has been completed (see, Chimney and large lead-throughs). An underlay membrane that has been installed according to the installation instructions does not have a single nail in view. Ensure proper adhesion of all the seams/overlaps by walking on them, for example.

* Note! The instructions refer to heating as an alternative fixing method. Heating may only be applied if it can be implemented in a safe manner, the fire safety of the structures has been ensured in advance, and the implementation takes place by professionals of the waterproofing field, who have a valid hot work permit. The heating must be performed with extra care.

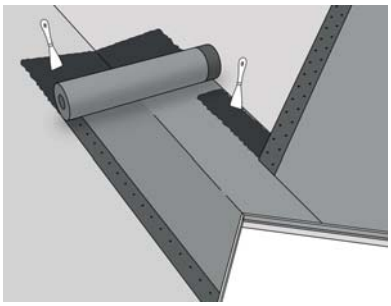
Renovation sites

As a general rule, an underlay membrane may on renovation sites be installed on top of the old bitumen roofing, if the roof ventilation is working and the underlaying structures are in order. The new underlay membrane must be installed in parallel with the old roofing so that the longitudinal seams of the roofings do not fall in the same place. The bumps/pouches that the old roofing possibly has must be cut as well as glued and nailed to the underlay before the new roofing is installed.

Choosing installation direction



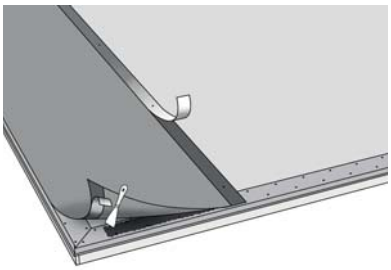
Underlay membranes with an adhesive edge may be installed both vertically or horizontally. If a top membrane is to be installed on top, it must be installed in the same direction as the underlay membrane ensuring that the longitudinal seams do not overlap. The installation direction affects the fluency of installing the roof, its appearance, and possibly also the need for the roofing material (the dimensions of the roof in relation to the length of the roll). In case of a steep roof, vertical installation is recommended, because it is difficult to have the membranes straight in a horizontal installation, if the roof inclination exceeds 1:4



Valleys i.e. mitre-cuts

Install the underlay membrane to the bottom of a valley and glue it throughout to the underlay with a sealing adhesive (a glue layer of approximately 1 mm), and nail by the edges at distances of 100 mm.

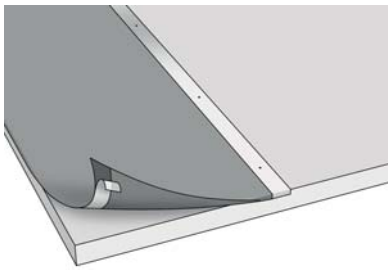
At a later stage, the underlay membranes from the panes are installed 150 mm on top of a membrane at the bottom of the mitre-cut. Cut the ends of the membranes to the line of the valley with the help of a measuring board, and fix carefully on the entire length the overlap with sealing adhesive. Do not nail on the seam!

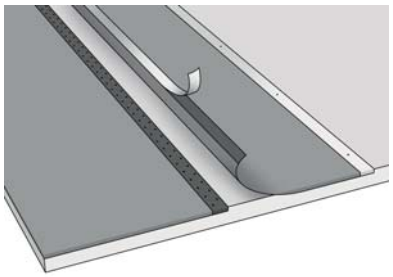


Eaves

On eaves, eaves flashings are installed according to the installation instructions of the roofing, if so required. The eaves flashings must not be PVC-coated. Note! If the eaves flashings are installed before the underlay membrane, the underlay membrane must by glued with Kerabit sealing adhesive to the collar of the eaves flashing, deviating from the instructions below, and the membrane is not folded over the edge in this case. If there will be a bitumen roofing on top of the underlay membrane (such as a bitumen shingle), the sheet metal plating is only installed after the underlay membrane. See installation instructions of the water roofing and installation instructions of Kerabit eave flashing.

Vertical installation (roof slope 1:10 or steeper)

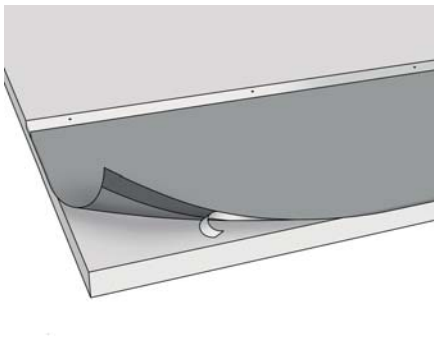


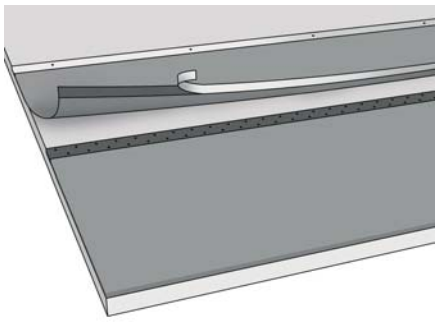


Lay out the underlay membrane in the direction of the verge in a straight line and slightly over the edges so that the edges can be folded approximately 15 mm under the lower edges of the boarding. Nail the top edge at every 100 mm (start the nailing from about 200 mm of the edge that has an adhesive strip on the bottom side).

Pre-nail the membrane at approximately every 1 m through the protective plastic cover of the adhesive strip on the top side. Remove the protective plastic cover of the adhesive strip on the bottom side and press the membrane tightly onto the underlay. Align the next membrane and pre-nail it at approximately every 1 m through the protective plastic cover of the adhesive strip on the top side. Turn aside the membrane edge on the side of the verge from the top of the first membrane. Remove the protective plastic cover from the top side adhesive edge of the first membrane and nail the membrane onto the underlay in a zigzag pattern with 100 mm spacing. Note! The distance of nails from the edges of the adhesive strip at least 15 mm. Remove the protective plastic cover from the underside adhesive edge of the second membrane, and press the adhesive edges against each other (so that the zigzag nailing of the first membrane is covered). Finish the fixing of the top edge by nailing at the seam. Repeat the same steps until the pane is finished.

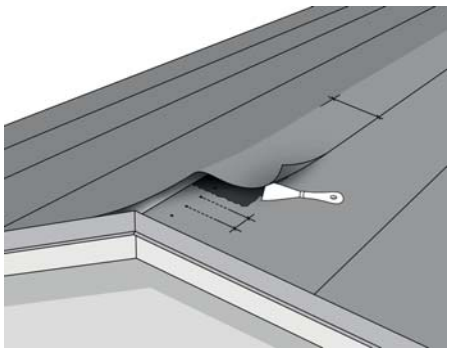
Horizontal installation (roof slope 1:4 to 1:10)





Lay out the membrane in a straight line on the lower eaves and slightly over the edges so that the edges can be folded approximately 15 mm under the lower edges of the boarding. Pre-nail at the top edge at approximately every 1 m through the protective plastic cover of the adhesive strip on the top side. Lift up the lower edge of the membrane, remove the protective plastic cover of the adhesive strip, and press the membrane tightly onto the underlay. If need be, nail at the folded edge, if an eaves flashing is not immediately installed on top.

Align the next membrane with the adhesive edge overlapping, and pre-nail at the top edge at approximately every 1 m through the protective plastic cover of the adhesive strip on the top side. Lift up the lower edge of the membrane from the top of the first membrane. Remove the protective plastic cover from the top side adhesive edge of the first membrane and nail the membrane at the adhesive edge onto the underlay in a zigzag pattern with 100 mm spacing. Note! The distance of nails from the edges of the adhesive strip at least 15 mm. Remove the protective plastic cover from the underside adhesive edge of the second membrane, and press the adhesive edges against each other (so that the zigzag nailing of the first membrane is covered). Repeat the same steps until the pane is finished.

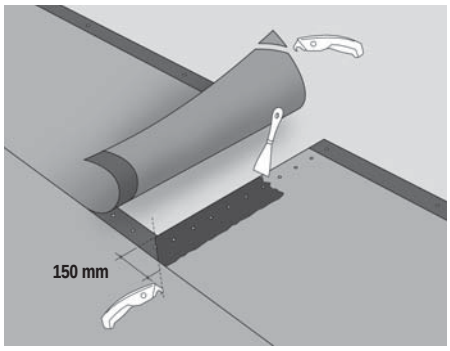


Ridge

If there will be no dedicated ventilation of the fridge, the underlay membrane is installed as follows:

Option A) Cut the membranes of the first pane flush with the ridge, and nail to the underlay every 100 mm. Turn the membranes of the second pane 200 mm over the ridge and glue throughout with sealing adhesive to the membrane on the second pane. Do not nail on the seam!

Option B) Cut the last membranes of both panes flush with the ridge, and nail to the underlay every 100 mm. Split the membrane in the longitudinal direction into two strips. Glue a strip onto the ridge. A ridge strip must not be nailed at any other points than at possible extensions. Overlap end extensions by 150 mm, nail the end of a previous membrane at every 100 mm to the underlay and glue the topmost membrane by the width of the overlap to the lower one.

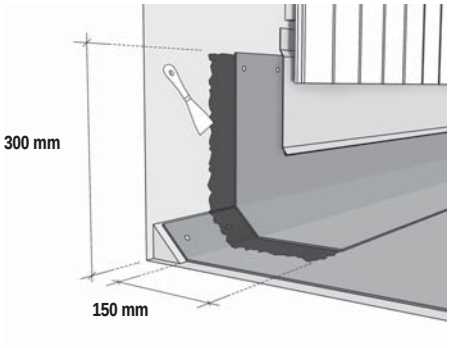


Extensions

Overlap the membranes by 150 mm. Cut off piece from the corners of the membrane as illustrated in the attached drawing. Nail the end of the lower membrane to the membrane every 100 mm. Glue the topmost membrane by the width of the overlap to the lower one.

Option B*) Fixing an extension seam of Kerabit 2600 UB Fleece underlay membrane by heating

The end seams of Kerabit 2600 UB Fleece may be heating the lower side of the topmost membrane at a seam with a low temperature so that the bitumen mass on the lower side melts and adheres to the membrane below.



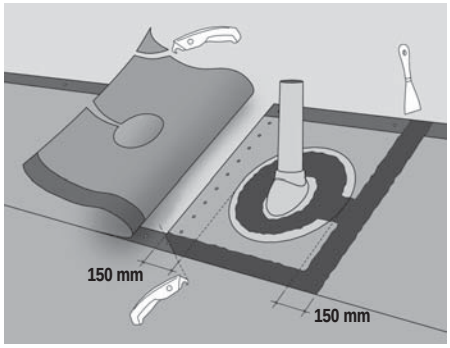
Upturns

Lift the underlay membrane from the pane to at least the hight of the top edge of the triangle batten strip and nail it and, if need be, glue it in place. Cut the membrane strips needed for an upturn, which extend by at least 300 mm to the vertical surface and by at least 150 mm on top of the roofing, or as instructed in the installation instructions of the water roofing. Glue the strips throughout and ensure the mechanical fixing of the upturn by nailing. Protect the upturn after the installation of the water roofing with sheet metal plating, for example, so that water cannot get between the membrane and the vertical surface.

Round lead-throughs

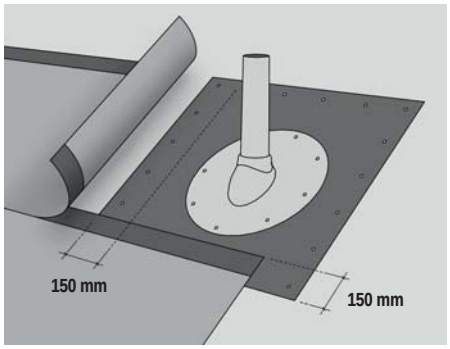
Seal round lead-throughs with roof penetration collars suitable for use with the roofing material, taking into account the installation instructions of the water roofing.

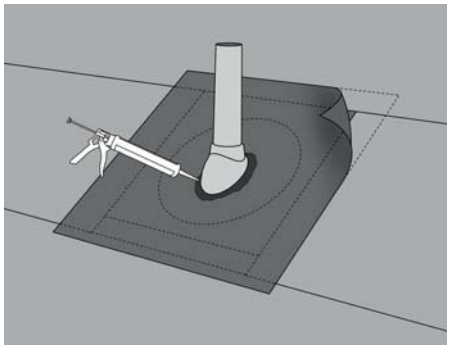
Option A) By gluing



Dimension the membranes so that a joint falls at a lead-through. Install the membranes on top of each other over the distance of the collar diameter + 300 mm. First install the membrane that goes under the collar. Measure the starting point: put the sealing collar in place for a while and mark 150 mm outward from the collar edge. Cut a hole the size of the lead-through in the membrane, and seal the membrane to the base. Install the lead-through, glue and screw/nail the collar to the underlay. Cut a hole the size of the base of the lead-through seal in the membrane to be placed over the lead-through, and place the membrane over the collar. Glue the membrane to the collar and to the membrane below with sealing adhesive. Finish the base of lead-through by applying sealing adhesive.

Option B*) By heating (only Kerabit 2600 UB Fleece and 3000 UB) by using Kerabit 4000 UT Hitsi



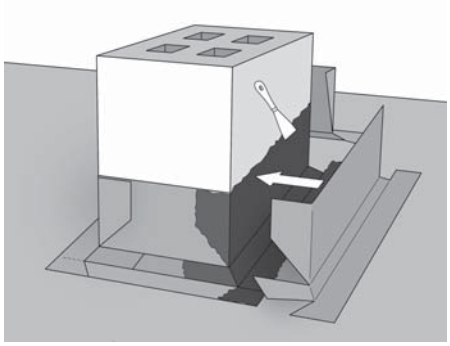


Cut two 1 x 1 m pieces from Kerabit 4000 UT Hitsi. Heat the bottom side of one of the pieces so that the plastic and bitumen mass melt. Press the piece in place over the lead-through opening. Use a knife to cut a hole at the opening. Heat the top surface of the piece at the section that comes under the lead-through seal, and carefully press the lead-through seal in place. Screw/nail the collar edges and nail the edges of the membrane piece to the underlay. Overlap the underlay membranes from the pane by 150 mm and fold them aside for the time the heating takes. Heat the top side of the membrane piece so that the plastic and bitumen mass melt throughout. Presse the ends of the underlay membrane from the pane in place. Cut a hole the size of the base of the lead-through in the second underlay membrane piece cut from Kerabit 400 Hitsi. Heat the bottom surface of the piece and install it in place over the lead-through. Finish the base of lead-through by applying sealing adhesive.

Chimneys and other large lead-throughs

Before installation of the roofing, install a triangle batten strip to the base of a chimney or another large lead-through to round-out the angle (with the exception of machine-sealed roofing installed directly on top of the underlay membrane). Install the underlay membrane below the lead-through and on the sides on the top edge of the triangle batten strip. Only install the membrane above the lead-through after you have completed the chimney upturns.

Note! On chimneys of a log house, subsidence margin needs to be taken into account as follows: Make a plywood collar at least 400 mm in height around the chimney (leave a gap to the chimney) and attach it to the roof structure using a triangle batten strip.



Option A) By gluing

Cut upturn pieces according to the attached image from the underlay membrane. Glue the pieces throughout to the chimney and the base with Kerabit sealing adhesive in the numerical order of the image. Mechanically anchor the pieces by their top edge. Below and on the sides of the chimney, the pieces overlap over the roofing, on top of the chimney below the roofing. Carefully glue the membrane on top of the chimney to the upturn piece.

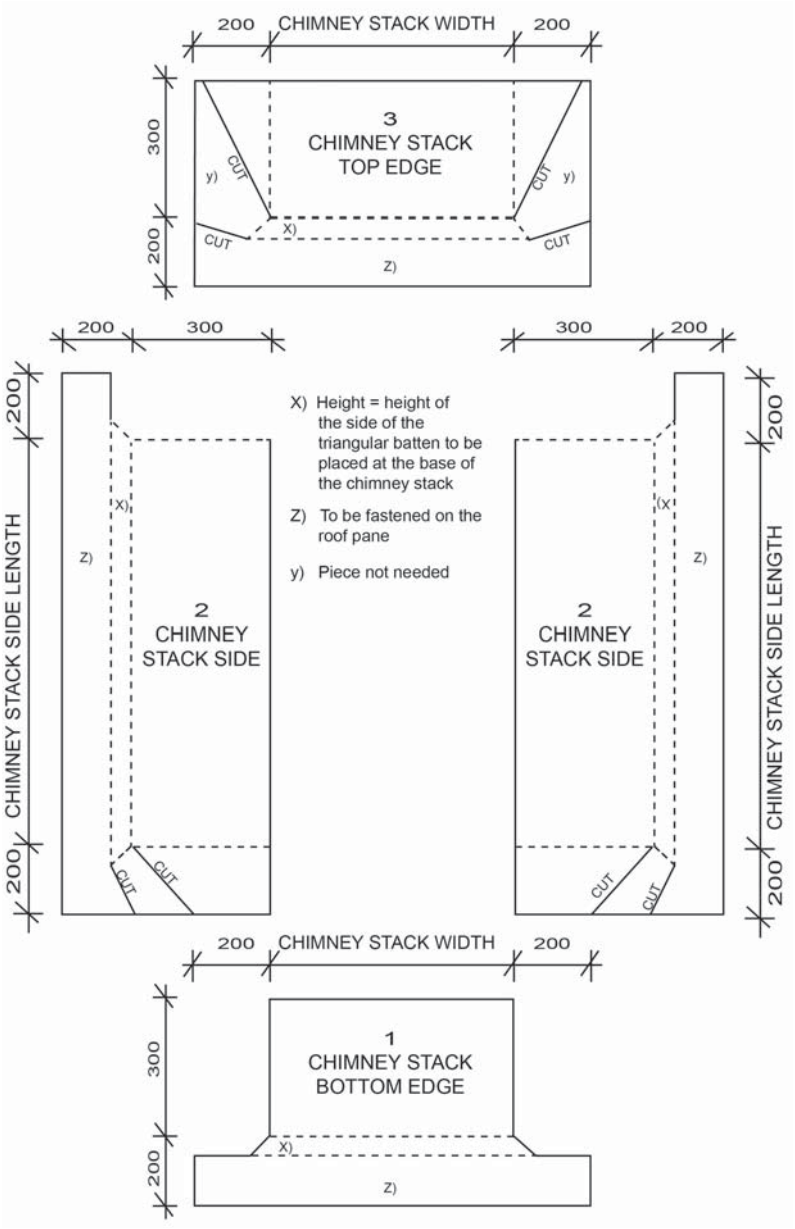
Option B*) By heating (only Kerabit 2600 UB Fleece and 3000 UB) by using Kerabit 4000 UT Hitsi

Cut upturn pieces according to the attached image from Kerabit 4000 UT Hitsi. Heat the bottom side of one of the upturn pieces so that the plastic and bitumen mass melt. Fix the pieces throughout to the chimney and the base in the numerical order of the image. Mechanically anchor the pieces by their top edge. Below and on the sides of the chimney, the pieces overlap over the roofing, on top of the chimney below the roofing. Heat the surface of the upturn piece on top of the chimney and carefully attach the underlay membrane top the upturn piece by pressing.

Subsequent measures

If the fixing is implemented as hot work, a fire-watch needs to be arranged.

The chimney must be protected by sheet metal plating. If through mountings must be installed on the roof afterwards, ensure their waterproofing.



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